High Water Update
April 21, 2021

Ignacio Harrouch, P.E.
Operations Division Chief
Coastal Protection and Restoration Authority
Mississippi River and Tributaries

- 41% of all water in U.S.
- World’s 3rd largest watershed
- MR&T system includes over 2200 miles of levees and floodwalls
Mississippi River and Tributaries

Percentage of Flow

Upper Mississippi
- Platte – 1%
- Missouri – 10%
- Mississippi – 19%
- Ohio – 50%

80%

Lower Mississippi
- White – 3%
- Tennessee – 10%
- Arkansas - 5%
- Yazoo – 2%

20%

80%
50%
100%

Upper Mississippi
- Yellow River
- Missouri River
- Mississippi River
- Ohio River

Lower Mississippi
- White River
- Tennessee River
- Arkansas River
- Yazoo River

Gulf of Mexico
Lower Mississippi Flood Potential Summary
National Weather Service

- Flood risk can be characterized as near normal over the Lower Mississippi and Tennessee Valleys.
- Minor flooding with isolated moderate flooding is possible for portions of the Lower Mississippi, Lower Ohio, and Atchafalaya Basins.
- Minor flooding with isolated moderate flooding is possible over the remaining tributaries in the Lower Mississippi Valley.
- Snowmelt is not a significant factor this year. The frequency, intensity, and extent of rainfall will ultimately determine the final outcome of flood risk for this Spring.
Winter Snowfall

Midwestern Regional Climate Center

- Snowmelt is not a significant factor this year
Precipitation Probability – Three Month Outlook

Climate Prediction Center

- Frequency, intensity, and extent of rainfall will determine flood risk this spring
- Low confidence in precipitation chances for central areas
- Above normal for Ohio River basin
- Below normal for Red River basin
USACE Flood Storage Capacity

- USACE manages the water through the Mississippi system
- Available flood storage capacity is similar to last year
- Flood control projects have available flood storage capacity throughout the system
Mississippi River 28-Day Forecast
National Weather Service

Cairo, IL

LMRFC NAEFS-based Forecast (16 Days QPF)

New Orleans, LA

LMRFC NAEFS-based Forecast (16 Days QPF)
Flood Crest Travel Times

• 40 days: Upper Mississippi and Ohio River basins to New Orleans
• 10 days: Arkansas River to New Orleans
• 5 days: Northern Louisiana to New Orleans
# Consecutive Days Above Flood Stage

## Lower Mississippi River Forecast Center

Current data as of Jun 26, 2020

<table>
<thead>
<tr>
<th>Forecast Location</th>
<th>Record (Days/Year)</th>
<th>2020 (Days/Period)</th>
<th>2020 (Days)</th>
<th>2019 (Days)</th>
<th>1973 (Days)</th>
<th>1927 (Days)</th>
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</thead>
<tbody>
<tr>
<td>Cairo, IL</td>
<td>156 1927</td>
<td>97 Feb 7th – May 13th</td>
<td>156</td>
<td>97</td>
<td>76</td>
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<tr>
<td>Memphis, TN</td>
<td>65 1927</td>
<td>16 Mar 28th – Apr 12th</td>
<td>39</td>
<td>64</td>
<td>65</td>
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<tr>
<td>Arkansas City, AR</td>
<td>197 1927</td>
<td>37 Mar 24th – Apr 29</td>
<td>94</td>
<td>72</td>
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<tr>
<td>Greenville, MS</td>
<td>155 1927</td>
<td>41 Mar 23rd – May 2nd</td>
<td>155</td>
<td>71</td>
<td>115</td>
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<tr>
<td>Vicksburg, MS</td>
<td>185 1927</td>
<td>96 Feb 13th – May 20th</td>
<td>162</td>
<td>83</td>
<td>185</td>
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<tr>
<td>Natchez, MS</td>
<td>215 2019</td>
<td>160 Jan 14th – Jun 21st</td>
<td>215</td>
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<td>Red River Landing, LA</td>
<td>227 2019</td>
<td>165 Jan 13th – Jun 25th</td>
<td>227</td>
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<tr>
<td>Baton Rouge, LA</td>
<td>211 2019</td>
<td>156 Jan 18th – Jun 21st</td>
<td>211</td>
<td>99</td>
<td>135</td>
<td></td>
</tr>
</tbody>
</table>

Numbers in Red are records for 2019

Data provided by U.S. Army Corps of Engineers
Lower Mississippi River Hydrographs

National Weather Service
Flood Fight Triggers

Phase I

• Mississippi River: 11 feet and rising at Carrollton Gauge
• Teams inspect the levee system 1-2 times per week
• Permitted work within 1500-ft of levee center line needs waiver
Phase II

- Mississippi River: 15 feet and rising at Carrollton Gauge
- Teams inspect the levee system daily (973 miles)
- All excavations within 1500-ft of the levee centerline must stop
Flood Control Structures

Bonnet Carré Spillway

• **Purpose:** Maintain design flows of 1.25 million cfs or less through New Orleans
• **Opening Trigger:** 1.25 million cfs

Morganza Floodway

• **Purpose:** Maintain design flows of 1.5 million cfs or less through Baton Rouge
• **Opening Trigger:** 1.5 million cfs
Flood Control Structures

Bayou Chene Closure

- **Purpose:** Prevent backwater flooding from the Atchafalaya River into St. Mary, St. Martin, Terrebonne, Assumption, Iberville, and Lafourche parishes.

- **Closing Trigger:** EL 7.0 (MLG) @ Morgan City